



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/275,727	03/24/1999	ANKE T. DEJONG	ADAPP091A	1135
------------	------------	----------------	-----------	------

25920 7590 12/18/2002

MARTINE & PENILLA, LLP
710 LAKEWAY DRIVE
SUITE 170
SUNNYVALE, CA 94085

EXAMINER

TRAN, MYLINH T

ART UNIT

PAPER NUMBER

2174

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/275,727

Applicant(s)

DEJONG ET AL.

Examiner

Mylinh T Tran

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 12/09/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed 12/09/02 has been entered and carefully considered. Claims 1, 3, 18 and 21 have been amended. However, Limitations of amended claims have not been found to be patentable over prior art of record, therefore, claims 1-18 and 20-21 are rejected under the same ground of rejection as set forth in the Office Action mailed (10/01/02).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 14-17 and 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath et al.[US. 6,263,350] in view of Smith et al.[US. 5,829,053] and further in view of Ofer et al. [US. 5,890,204].

As to claims 1, 17 and 18, Wollrath et al. discloses a storage area network management and configuration system comprising an enterprise network including a plurality of computer systems, wherein some of the plurality of computer systems include a server component (figure 8, 1100), some of the plurality of computer systems include a client component (figure 8, 1000), or both the client component and the server component (figure 7, column 10, lines

41-55). The difference between Wollrath et al. and the claim are a storage enclosure being connected to a computer system having at least the server component, the storage enclosure having a RAID array of disks and a graphical user interface provided by the client component, the graphical user interface provides a graphical representation and icon links to configuration tools for selecting and structurally defining the RAID array of disks of the storage enclosure, the structurally defining including a capability for graphically assigning a RAID level. Smith et al. shows storage enclosure that has a RAID array of disks (Figure 6, 86a, 86bm 86c and 80, column 6, lines 23-40). Smith et al. also cites "The memory disk can include multiple physical storage devices, including one or more redundant arrays of independent disks (RAIDs)" (see column 4, lines 2-6). It would have been obvious to one of ordinary skill in the art, having the teachings of Wollrath et al. and Smith et al. before them at the time the invention was made to modify the enterprise network taught by Wollrath et al. to include the storage enclosure having a RAID array of disks of Smith et al., with the motivation being to make efficient managing storage resources as taught by Smith et al.

While Smith et al. teaches the storage enclosure, he does not show the graphical user interface. Ofer et al. teaches the graphical user interface provides a graphical representation and icon links to configuration tools for controlling the RAID array of disks of the storage enclosure. Ofer et al. cites "a method for configuring a mass storage system, in which an array of disk

Art Unit: 2174

storage devices connect to a storage controller and a plurality of host computers also connect to the storage controller, provide the capability of using a convenient graphical user interface at the host computer...the user can also, using the graphical user interface, modify the system status or configuration" (see abstract); Ofer also shows selecting and structurally defining the FAID array of disks of the storage enclosure (Ofer cites at column 4, lines 50-60 "to easily modify those connections using a convenient graphical user interface at the host computer, enables a user to modify, on the fly, the entire logical structure of the disk storage system" read as the structured RAID array of disks; Ofer also discloses the structurally defining including a capability for graphically assigning a RAID level "each storage controller has two disk adapter boards labeled DA15 and DA16, each board able to connect to four disk drives labeled A, B, C and D. Thus, the storage controller controls up to, in this particular illustrated embodiment, eight disk drive units, although in other embodiments of the invention more or less hosts can communicate with more or less disk drives" at column 5, lines 7-17. It would have been obvious to one of ordinary skill in the art, having the teachings of Wollrath et al., Smith et al. and Ofer et al. before them at the time the invention was made to modify the network system and the storage enclosure taught by Wollrath et al. and Smith et al. to include the graphical user interface configuration of Ofer et al., for the purpose to make more convenient to manage the storage device over the network as taught by Ofer et al.

Art Unit: 2174

As to claim 2, Ofer et al. shows an array modifier link for selecting a RAID array that is desired to be modified in terms of adjusting a drive selection and RAID level (column 4, lines 42-67).

As to claim 14, Smith et al. teaches the viewing of the enterprise network can be of physical devices or logical devices, and the physical devices and the logical devices can be displayed in one of a tree view and a quick view (column 2, lines 61-65).

As to claim 15, Smith et al. shows a graphical failure representation is provided of selected drives of the storage enclosure, the graphical failure representation being configured to be displayed on a failed drive when the failed drive is in a viewable setting and on the storage enclosure when the failed drive is not in the viewable setting (column 2, lines 1-15).

As to claim 16, Wollrath et al. shows the client component provides a user administrator the management and configuration control to the enterprise network (column 9, lines 40-57).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-10, 13 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath et al.[US. 6,263,350] in view of Smith et al.[US. 5,829,053], further in view of Ofer et al. [US. 5,890,204] and further in view of Leong et al.[US. 6,269,398].

As to claim 3, the difference between Wollrath et al., Smith et al., Ofer et al. and the claim is an array builder link, the array builder link when selected provides selection tabs to allow array building from an array template or from scratch. Leong et al. teaches an array builder link (figure 4, 441, 442, 443). The elements are represented as the tabs for the array builder link. It would have been obvious to one of ordinary skill in the art, having the teachings of Wollrath et al., Smith et al., Ofer et al. and Leong et al. before them at the time the invention was made to modify the storage area network management taught by Wollrath et al., Smith et al., Ofer et al. to include the array builder link of Leong et al., with the motivation being to make efficiently processing between storage enclosure and the graphical representation and linking icons as taught by Leong et al.

As to claim 4, Smith et al. also discloses selecting hardware to configure, the hardware to configure is selected from the storage enclosure or from additional storage enclosures that are connected to the enterprise network (column 5, lines 12-21), selecting an array template that contains a RAID configuration scheme that is optimally selected for a particular storage application (column 6, lines 23-40). The difference between Smith et al. and the

Art Unit: 2174

claim is dragging the selected array template, that is in the form of an icon, over the selected hardware or dragging the selected hardware over the selected array template, the dragging is configured to automatically apply the RAID configuration scheme. Ofer et al. shows the dragging on column 5, lines 44-55.

As to claim 5, Smith et al. shows a RAID level, a number of drives in the selected hardware, a number of spare drives, a stripe size and an array address (Figure 6, 86a-86b, 81a-81b, column 8, lines 50-65).

As to claim 6, Leong et al. teaches an enterprise monitor link, when selected the monitor link provides a window wherein monitoring settings can be set (Figures 7 and 9).

As to claim 7, Leong et al. discloses a failure indicator (Figure 8) and a disk capacity indicator (Figure 15).

As to claim 8, Leong et al. teaches a temperature indicator for the storage enclosure, a battery health indicator and a power supply health indicator (column 1, lines 25-37).

As to claim 9, Leong et al. shows an enterprise monitor window for providing a quick view of selected storage enclosure parameters (column 10, lines 34-42).

As to claim 10, Leong et al. discloses an event notifier link, when selected provides customizable failure and status notifications (Figure 8 and Figure 15, column 9, lines 48-62).

As to claim 13, Leong et al. discloses an enterprise icon, when selected allows viewing of the enterprise network that includes the plurality of computer

Art Unit: 2174

systems and associated storage enclosures that are connected to computer systems having the server component (column 11, lines 6-25).

As to claim 20-21, the claimed limitations are similar in scope to claim 1, and thus would have been rejected under similar rationale. It is further noted that Leong et al also teaches the graphical user interface control includes one or more of an array modifier icon link, an enterprise monitor icon link, an array builder icon link, an event notifier icon link, an unconfigured hardware icon link, a templates icon link, and an enterprise icon link (column 11, lines 6-25)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath et al.[US. 6,263,350] in view of Smith et al.[US. 5,829,053], further in view of Ofer et al. [US. 5,890,204], further in view of Leong et al.[US. 6,269,398] and further in view of Madsen et al. [US. 6,151,620].

As to claims 11 and 12, the difference between Wollrath et al., Smith et al., Ofer et al, and Leong et al., and the claim are the setting user notification profiles, the profiles include communication information and the communication

Art Unit: 2174

information includes e-mail information and pager information. Madsen et al. shows the communication information (column 3, lines 25-45). It would have been obvious to one of ordinary skill in the art, having the teachings of Wollrath et al., Smith et al., Ofer et al, Leong et al., and Madsen et al. before them at the time the invention was made to modify the storage area network management taught by Wollrath et al., Smith et al., Ofer et al, Leong et al., to include the communication information of Madsen et al., in order to make efficient managing the network and the configuration as taught by Madsen et al.

Response to Amendment

Applicant has argued that the prior arts fail to teach "graphical user interfaces that enable the "selecting and structural defining" of an array of disks. The Examiner does not agree. Ofer also shows selecting and structurally defining the FAID array of disks of the storage enclosure. Applicant's attention is directed to column 4, lines 50-60 "to easily modify those connections using a convenient graphical user interface at the host computer, enables a user to modify, on the fly, the entire logical structure of the disk storage system" read as the structured RAID array of disks.

In response to Applicant's argument that there is no "capability for graphically assigning a RAID level" in the prior art. This is not true because Ofer discloses the structurally defining including a capability for graphically assigning a RAID level "each storage controller has two disk adapter boards labeled DA15 and DA16, each board able to connect to four disk drives labeled A, B, C and D.

Art Unit: 2174

Thus, the storage controller controls up to, in this particular illustrated embodiment, eight disk drive units, although in other embodiments of the invention more or less hosts can communicate with more or less disk drives" at column 5, lines 7-17.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111 (c) to consider these references fully when responding to this action. The documents cited therein teach the storage area network management and configuration system and the communication information he communication information includes e-mail information and pager information. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires fax a response, (703) 746-7238, may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-4395 for Non-Official or draft communications. NOTE, A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for information facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

Art Unit: 2174

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday-Thursday from 8.00AM to 6.30PM

If attempt to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Kristine Kincaid, can be reached on (703) 306-0640,

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Mylinh Tran

Art Unit 2174

Kristine Kincaid
KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100